

## ABSTRACT

The present invention relates to:

a method for producing  $\alpha$ -hydroxycarboxylic acid, which comprises hydrolyzing cyanohydrin in the presence of a hydrocarbon solvent;

a method for producing optically active  $\alpha$ -hydroxycarboxylic acid, which comprises: producing optically active cyanohydrin by performing a reaction between a carbonyl compound and hydrogen cyanide, using a solvent comprising at least one organic solvent selected from a group consisting of an alcoholic solvent, an ester solvent, an ethereal solvent and a carboxylic solvent; removing said organic solvent from said reaction solvent; and hydrolyzing the remaining reaction mixture without isolating optically active cyanohydrin;

a method for producing optically active  $\alpha$ -hydroxycarboxylic acid, which comprises hydrolyzing optically active cyanohydrin, using at most 10 equivalents of mineral acid relative to said optically active cyanohydrin under the condition that maximum temperature when reacting is 90°C or less; and

a method for producing optically active crystalline  $\alpha$ -hydroxycarboxylic acid, which comprises crystallizing optically active  $\alpha$ -hydroxycarboxylic acid in an aqueous solution.

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